

October 9, 2003

Commissioners:

I wish to reply to a reply comment as reported in *QST*.

BPL's 15 Minutes of Fame¹

... Here's a Reply Comment ... written after the ARRL had filed its extensive comments and technical showings:

"Neither ARRL nor the individual commenters provide any technical support for their argument that Access BPL cannot operate in bands used by amateur radio licensees. ...The volume of comments filed by amateur radio licensees is largely reflective of a concerted effort by ARRL to inflate concern over BPL interference without demonstrated instances of interference or sound technical reasons to believe interference will occur."-- *Southern Linc, Southern Telecom, Inc., and Southern Company Services, Inc., by their attorneys*. (Another note: Southern saw fit to mention how much money the ARRL had raised for defense against BPL--money that, of course, has come from the personal pockets of private citizens who are trying to protect something that is priceless to them. We wonder how much the Southern companies have paid their attorneys--the evidence suggests that it's more than they have paid any competent RF engineers.)

Okay, first let's look at what the ARRL is. My source is dated, but you'll get the picture.

THE AMERICAN RADIO RELAY LEAGUE²

The ARRL is today not only the spokesman for amateur radio in the U.S. ... but it is the largest amateur organization in the world. It is strictly of, by and for amateurs, is noncommercial and has no stockholders. The members of the League are the owners of the ARRL and *QST*.

The League is pledged to promote interest in two-way amateur communication and experimentation. It is interested in the relaying of messages by amateur radio. It is concerned with the advancement of the radio art. It stands for the maintenance of fraternalism and a high standard of conduct. It represents the amateur in legislative matters.

One of the League's principle purposes is to keep amateur activities so well conducted that the amateur will continue to justify his existence. Amateur radio offers its followers countless pleasures and unending satisfaction. It also calls for the shouldering of responsibilities--the loyalty to the traditions of amateur radio, a dedication to its ideals and principles, so that the institution of amateur radio may continue to operate "in the public interest, convenience and necessity."

The operating territory of ARRL is divided into ... fifteen U.S. divisions. The affairs of the league are managed by a Board of Directors. One director is elected

¹"It Seems to Us," *QST*, October, 2003, p. 9.

²The Radio Amateur's Handbook published by the American Radio Relay League, forty fourth edition, 1967, p. 10.

every two years by the membership of each U.S. division ... These directors then choose the president and three vice-presidents, who are also members of the Board. The secretary and treasurer are also appointed by the Board. The directors, as representatives of the amateurs in their divisions, meet annually to examine current amateur problems and formulate ARRL policies thereon. The directors appoint a general manager to supervise the operations of the League and its headquarters, and to carry out the policies and instructions of the Board.

Here I would like to point out that "The members of the League are the owners of the ARRL." I and other members are the owners of the League which "is noncommercial and has no stockholders."

Furthermore, recall that Commissioner Kathlene Abernathy in her Remarks to the United PowerLine Council Annual Conference, Sept. 22, 2003, stated, "it is important to recognize that although the emergence of new platforms like BPL will eliminate the need for many *competition-related* regulations, *other* types of regulation may well remain necessary. For example, the FCC must implement public policy goals unrelated to competition, or even at odds with competition." As recorded above, "One of the League's principle purposes is to keep amateur activities so well conducted that the amateur will continue to justify his existence. ... Amateur radio ... also calls for the shouldering of responsibilities--the loyalty to the traditions of amateur radio, a dedication to its ideals and principles, so that the institution of amateur radio may continue to operate 'in the public interest, convenience and necessity.'"

It is entirely consistent with the League's goals, and the NOI goal of exploring interference potentials, to run tests financed by its members (owners) to determine if BPL when and if implemented would produce sufficient rf pollution to make it difficult or impossible for amateurs to use their HF and low VHF frequencies "in the public interest, convenience and necessity." It is entirely consistent with Commissioner Abernathy's stated goal to do those tests and publish the results even if *they demonstrate that the limit necessarily imposed on BPL to keep the airwaves clear would be "at odds" with the ability of BPL to compete with other providers.* It doesn't seem to be in the competitive interests of the BPL companies to do tests that would show the same; it's more in their interest to hire blustery lawyers.

As for criticism of the ARRL, this is nothing new. I shall quote from one of its detractors in 1964 when I was first licensed.

*What is the ARRL? Who is the ARRL? What does the ARRL do? What should it do?*³

The primary activity of the ARRL is to publish QST, the Handbook and other assorted publications. As a publishing house it is quite successful. The League also provides a wide range of services to the amateurs such as managing the QSL

³73 Magazine, Peterborough, New Hampshire, March, 1964, p 2,4

bureau, issuing certificates, maintaining the Honor Roll, B[rass] P[ounders] L[eague], distributing films to clubs, running W1AW, sending out messages through the Official Broadcast Stations, etc.

The League employs a counsel to aid it in submitting proposals to the FCC and to provide legal references for lawyers representing amateurs who are having difficulties tied in with amateur radio.

The League is ... run by the Board of Directors. Unfortunately the Board gets together only once a year and each Director is only in office for two years unless he is re-elected. This means that each Director can look forward with confidence to but two meetings. This is an extremely weak point in the makeup of the League and may be largely responsible for the lack of representation felt by many members.

The directors decide upon the president and vice president. ...

The ARRL was set up by Hiram Percy Maxim. Maxim was a genius, by the way...

When amateurs write in and tell me that everything is going to be OK, that the ARRL has been leading us for fifty years and we should all put our support behind the League, I wonder what they think the League is? ...

Thirty years later I am still a happy member of the ARRL, and can attest with confidence, "Mr. Maxim's genius had created an organization that would grow and flourish long after he was gone."⁴ What about the magazine I quoted above which was a regular detractor?

*** +73 Amateur Radio Today ceases publication⁵**

After completing 43 years of publication, 73 Amateur Radio Today magazine is calling it quits. Plans to publish a joint October/November issue fell through this week, and the September 2003 issue was the magazine's last. According to self-proclaimed "El Supremo and Founder" Wayne S. Green II, W2NSD, it was a simple matter of economics.

Okay, that aside, let's see about his magazine's criticism of ARRL finances back when I was starting in ham radio.

Some suggestions that I might make are: (10) League members should be entitled to know about League expenditures, particularly salaries, retirement payments and business expenses incurred by officers. The full financial report of the League should be published in QST each year.⁶

Gee, thanks for the advice. Seems that certain BPL companies are worried too about the League's expenditures on BPL research, more so than the members themselves are, so let's try to figure

⁴"It Seems to Us," David Sumner, The Maxim Memorial Station, W1AW, QST, September, 2002, p. 9.

⁵The ARRL Letter, Vol. 22, No. 40, October 10, 2003
* ARRLWeb <<http://www.arrl.org/arrlletter/>>.

⁶73 Magazine, pp. 78, 80.

out why.

The Maxim Memorial Station, W1AW⁷

Every year as we wrestle with the growing financial demands of frequency defense, challenges to amateurs' rights to effective antennas, member services, and support of our important volunteer and educational programs, the ongoing cost of operating W1AW becomes a greater concern. How will we continue to meet the demands of replacing equipment and maintaining topflight operations?

W1AW is our most prominent historic symbol of Amateur Radio. But we must find new and creative ways to fund its operation. So here's the question: Is the Amateur Radio community willing to ensure that the dream is kept by funding a permanent endowment for W1AW to pay for its annual operation and capital equipment needs?

As a start, this year our Development Office will try to raise \$150,000 earmarked for the endowment of W1AW. If you have provided financial support to W1AW or to another ARRL program in the past you may receive an invitation to contribute by mail. Anyone is welcome to contribute.

Let's see, with a membership of what is it?—155,000—that works out to a buck a head on average. And why would hams contribute a buck? Well, we hear W1AW on the air transmitting bulletins and code practice, many of us hams have actually worked the station, and as the article says, "W1AW is our most prominent historic symbol of Amateur Radio." Seems reasonable we'd support it.

As for testing for BPL interference, many hams have been subject to Part 15 interference radiated by the power lines, some of us have attempted to remedy the situation by tracing its source and dealing with it, and just as W1AW is such a prominent historical symbol of ham radio, "Man-made electrical noise is ... generally transmitted by the mains power lines," according to **Electronics Engineer's Reference Book**⁸, **Noise and Communication** by K R Sturley, PhD, BSc, FIEE, FIEEE Telecommunications consultant.

Okay, let's look at an example of how ARRL manages money.

The Colvin Award⁹

The Colvin Award is funded by an endowment established by Lloyd Colvin, W6KG (SK). Approximately \$6000 in annual income is available.

Consistent with Lloyd's wishes and with the policies of the ARRL Board of Directors, the Colvin Award is conferred in the form of grants in support of Amateur Radio projects that promote international goodwill in the field of DX. To minimize overhead costs and the time required to review applications, the Grants

⁷"It Seems to Us," David Sumner, *QST*, September, 2002, p 9

⁸Published 1984, Boston: Butterworths

⁹The DXCC Yearbook 1995 © 1996, ARRL, Newington, CT, p. 9.

Committee consists of three senior members of the ARRL Headquarters staff (at the present time, they are the Executive Vice President, Membership Services Manager, and DXCC Branch Manager) in Newington, CT.

It's my reading that "to minimize overhead costs and the time required," the ARRL does not "publish a full financial report of the League in QST each year" as it would be unwieldy and counterproductive to a *fraternal* organization run with efficient genius. We either trust our leadership or remove them.

Personally I trust them after watching them defend my interests over the last 40 years, reading about what they do in QST, and communicating with many other satisfied hams. Perhaps an example would help.

A LEAGUE OF ITS WORD¹⁰

_ I am an ARRL member and a reader of your Correspondence column. I am 51 years old, and radio has been my hobby since 1957, when I started as an SWL. I got my call sign later, in 1962: PY1NEW. I've had more than 5000 QSOs with US hams on all bands, both phone and CW.

I recently got a parcel of books that I had purchased from the ARRL. I ordered three books, but the package was damaged and only one book arrived.

I sent a letter to the ARRL explaining what had happened, and a few weeks later, the two books arrived without any charge!

I would like to thank the ARRL for trusting my word (that I did not get the three books) and for the fine work and courtesy in sending me the lost books. I congratulate you for your fine attention!— *Emanuel Tavares Filho, PY1NEW/ZW1NEW, Rio de Janeiro, Brazil*

I want to put the donations to ARRL for BPL interference testing in a better perspective by reminding you of an earlier award you received.

FCC RECEIVES AWARD FOR SPECTRUM AUCTIONS¹¹

The "Auction Team" of the Federal Communications Commission has received the Hammer Award "for reinventing government initiatives." The Commission said that the award recognized that the auctions (which were for narrowband Personal Communication Service spectrum and interactive video allocations) served consumers by licensing new services faster, served the public by selling rights to the spectrum, rather than giving them away, and served industry by awarding licenses to those who "value them highly."

...

Vice President Al Gore made the award presentation.

The Hammer award presented to you by then Vice President Al Gore recognized that industry was served by you "awarding licenses

¹⁰Correspondence, *QST*, January, 1993, p. 88.

¹¹"HAPPENINGS," *QST*, October, 1994, p. 86.

to those who value them highly." Likewise you would do a service to hams by honoring the BPL interference tests that we paid for out of our own pockets having valued our clear frequencies highly.

For comparison sake, let us look at investments in BPL itself. I shall quote from an article **The Electric Kool-Aid Bandwidth Test**¹² from *Wired Magazine* which I included with some earlier comments and include again for convenience sake. "The field, known as power line communications, or PLC, is pockmarked with wasted investments and technical failures." A lot of money has been sent down the drain with a lot of failed technology.

Inventor William "Luke" Stewart however, had a much grander vision, based on what he considered to be a dramatic discovery: Data could hitch a ride on the magnetic field created by electric currents running through power line wires. By piggybacking on this magnetic field, instead of on the electricity itself, he could obtain almost limitless speeds of transmission. In early 1998, Stewart founded Media Fusion with plans to bring this infinite-bandwidth technology, which he named advanced sub-carrier modulation (ASCM), to every home with an electrical outlet. His patent, issued in November 1999, brought Media Fusion's first wave of glowing press coverage. Gee-whiz reports spewed from ABC News: World News Tonight, The New Scientist, CNET, and The Wall Street Journal Europe. Most exuberant of all was Dallas' D Magazine, whose cover declared Stewart to be "Bill Gates' next nightmare." Stewart's technology, writer Richard Urban reported, had earned him a Nobel Prize nomination - and could be worth at least \$1 trillion.

Media Fusion promised to deliver, within two years, bandwidth at speeds thousands of times faster than what's possible with fiber. Stewart was company chair, while the board of directors included government heavyweights such as former Speaker of the House Robert Livingston; Terry McAullife, a leading Democratic fund-raiser and close friend of then-President Clinton; and Admiral James Carey, former chair of the Federal Maritime Commission. The firm's Web site declared that the ASCM technology would "impact every facet of our life," and the computing power of the network would be "exponentially more powerful than any supercomputer to date."

Stewart seemed aware of the fact - alluded to by the anxious executive I had spoken with - that many scientists weren't buying his theory. The patent, according to some physicists who examined it, couldn't be translated into a working system. No masers or Q switches have been proven capable of adding and removing data in a magnetic field. Stewart's invention would require a wholesale rethinking of modern physics. "Maxwell's theory of electromagnetism, one of the most robust deductive creations of human intelligence, simply doesn't describe how to use a field as a waveguide," said Paul Grant, a condensed matter physicist and a science fellow at the Electric Power Research Institute, "not to me or any physicist I've consulted with."

All skepticism and disbelief would fade, Stewart reasoned, when Media Fusion

¹²*Wired Magazine*, Issue 9.11 - Nov 2001. Copyright © 1993-2003 The Condé Nast Publications Inc. All rights reserved. Copyright © 1994-2003 Wired Digital, Inc. All rights reserved.

demonstrated the technology via a dramatic broadband test, sending HDTV across the grid for the public to see. According to Stewart, the company had negotiated with Dallas media giant Belo to provide the signal for the test, which had been delayed several times but was now scheduled for March 15, 2000.

With the help of a retired Navy rear admiral named James Carey, then Media Fusion's director of government relations, Stewart introduced the technology to half a dozen members of Congress - as well as high-level officials at the State Department and the FCC - and presented his ideas about why it should be funded (but not regulated) by the government. The result: a \$10 million Department of Defense expenditure for Media Fusion in the 2000 federal budget, for "undersea warfare applications" using ASCM. The provision was eventually dropped, but it served notice of the nascent company's unusual influence in Washington.

ASCM brought a \$10 million interest from the government, which would come from the pockets of us taxpayers. All this without adequate testing and despite flawed science. My point here is that BPL-sans-interference likewise contradicts the engineering principles that are in standard textbooks that the companies' engineers should have had access to at some time, and that they have not done the needed testing to prove that it can be implemented interference free.

As for what ever became of ASCM, I am including the whole article for you to go over because it is kind of a precursor to what will happen should BPL be allowed to go forward despite scientific misgivings and lack of satisfactory test results regarding interference generation. It just will not work interference free according to some pie-in-the-sky (broadband Nirvana) wishful thinking should it violate scientific theory and test result.

Finally, let's take a brief look at the economic scene. On the date of this letter I was stopped in the grocery store by a couple who were curious about the push cart I load my groceries into. I told them where I had bought it and the cost, \$29.99. In our competitive economy that is what one went for.

Now I look in the same day's paper¹³ and see on page A8, High-Speed Internet Access from QWEST at \$29.99 a month. Two pages later is Dish Satellite TV for only \$29.99 a month. And the page following that is AT&T Wireless for, you guessed it, \$29.99 a month.

I am not trying to discourage healthy competition. I just don't think that high speed internet access is in a separate league that would demand we trash all our incumbent HF & low VHF over the air uses of the spectrum to give it a leg up.

Respectfully Submitted,
Earl S. Gosnell III

¹³*The Register-Guard*, October 9, 2003